

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/770,517	MITSUHASHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Christian L Fronda	1652	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to AMENDMENT IN REPLY TO ACTION OF MARCH 26, 2003.
2. ☒ The allowed claim(s) is/are 11-19.
3. ☒ The drawings filed on 26 January 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. *Failure to timely comply will result in ABANDONMENT of this application.* **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.**

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachments**

- |  |   |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)  | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____             |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____               | 6 <input checked="" type="checkbox"/> Examiner's Amendment/Comment                  |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|  | 9 <input type="checkbox"/> Other _____  |

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### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Michael Reed on November 3, 2003.

2. The application has been amended as follows:

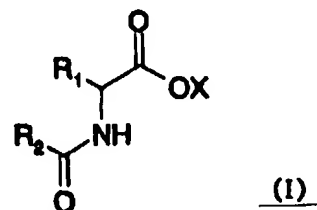
A. Cancel claims 1-10.

B. In claim 11, line 9, after the phrase "washing in 0.1 x SSC", insert the phrase "at 65°C"; in claim 11, line 13, delete "80%" and replace with "95%".

C. Replace claim 16 with the following"

"A method for producing D-amino acids, the method comprising:

(1) contacting a polypeptide having an amino acid sequence at least 95% identical to the amino acid sequence set forth in SEQ ID NO: 2, wherein said polypeptide has activity of a D-aminoacylase that acts on N-acetyl-D-amino acids to produce the corresponding D-amino acids and fails to act on N-acetyl-L-tryptophan, N-acetyl-L-phenylalanine, N-acetyl-L-valine, N-acetyl-L-leucine, and N-acetyl-L-methionine, with an N-acyl-DL-amino acid represented by the formula (I) or its salt:



wherein R<sub>1</sub> and R<sub>2</sub> may be identical or different and each represents a hydrogen atom or a substituted or unsubstituted hydrocarbon group; R<sub>2</sub> does not represent a hydrogen atom; and X is H, NH<sub>4</sub>, or a metal ion, and

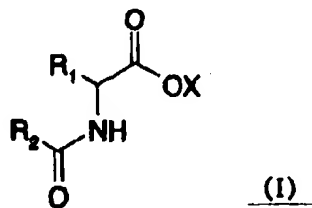
(2) isolating the D-amino acid produced by the reaction between said polypeptide and N-acyl-DL-amino acid.

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D.. Replace claim 17 with the following”

“A method for producing D-amino acids, the method comprising:

(1) contacting a polypeptide having an amino acid sequence as set forth in SEQ ID NO: 2 with up to 30 conservative amino acid substitutions, wherein said polypeptide has activity of a D-aminoacylase that acts on N-acetyl-D-amino acids to produce the corresponding D-amino acids and fails to act on N-acetyl-L-tryptophan, N-acetyl-L-phenylalanine, N-acetyl-L-valine, N-acetyl-L-leucine, and N-acetyl-L-methionine, with an N-acyl-DL-amino acid represented by the formula (I) or its salt:



wherein  $R_1$  and  $R_2$  may be identical or different and each represents a hydrogen atom or a substituted or unsubstituted hydrocarbon group;  $R_2$  does not represent a hydrogen atom; and X is H,  $NH_4$ , or a metal ion, and

(2) isolating the D-amino acid produced by the reaction between said polypeptide and N-acyl-DL-amino acid.

***Allowable Subject Matter***

3. Claims 11-19 are allowed.

4. The following is an examiner's statement of reasons for allowance:


The prior art neither teaches nor suggests Applicants' invention which is directed toward a method for producing D-amino acids a polypeptide having an amino acid sequence at least 95% identical to the amino acid sequence set forth in SEQ ID NO: 2, wherein said polypeptide has activity of a D-aminoacylase that acts on N-acetyl-D-amino acids to produce the corresponding D-amino acids and fails to act on N-acetyl-L-tryptophan, N-acetyl-L-phenylalanine, N-acetyl-L-valine, N-acetyl-L-leucine, and N-acetyl-L-methionine

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5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian L. Fronda whose telephone number is (703)305-1252. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can be reached at (703)308-3804. The fax phone number for this Group is (703)308-0294. Any inquiry of a general nature or relating to the status of this application should be directed to the Group 1600 receptionist whose telephone number is (703)308-0196.

CLF



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SUPERVISOR/EXAMINER  
TECHNICAL SERVICES AND